



BRIEF DESCRIPTION OF THE DRAWINGS

For the purpose of illustrating the invention, there are shown in accompanying drawing, forms which are presently preferred, it being understood that the invention is not intended to be limited to the precise arrangement and instrumentalities shown.

5 FIGS. 1A-1E diagrammatically show a physician communicating with a remote patient implanted with a neurostimulator.

FIG. 2A is a diagram of the sagittal section of the female pelvis, showing the relationship between various anatomic structures.

FIG. 2B is a schematic diagram showing physiological control of micturition.

10 FIG. 3 is a diagram showing anatomic relationships of the spinal nerves and sacral plexus.

FIG. 4 is a schematic diagram of the sacral region showing electrodes in sacral foramen, and placement of the implanted stimulator.

15 FIG. 5 is a diagram of the lateral view of the brain and spinal cord, with its relationship to the vagus nerve.

FIG. 6 is a diagram of the base of brain showing the relationship of vagus nerve to the other cranial nerves.

FIG. 7 is a diagram of the brain showing afferent and efferent pathways.

20 FIG. 8 is a schematic diagram showing relationship of Nucleus of the Solitary Track and how it relays information to other parts of the brain.

FIG. 9 is a diagram showing the relationship of food consumption and afferent signals for satiety being carried over the vagus nerve in a patient.

FIG. 10 is a diagram showing bilateral vagus nerve stimulation.

FIG. 11 is a simplified schematic diagram showing nervous control of the heart.

25 FIG. 12 is a diagram showing lead, implanted stimulator, and interface unit for spinal cord stimulation.

FIG. 13 is a simplified schematic and block diagram showing the implanted stimulator, interface unit, and remote mobile device for communication.

FIG. 14 is a diagram showing the two modules of the implanted stimulator.

30 FIG. 15 shows details of implanted pulse generator.

FIG. 16 shows details of digital components of the implantable circuitry.

FIG. 17 shows details of the analog and digital systems.

FIG. 18A is a diagram showing communication of the external stimulator over the internet.

FIG. 18B is a diagram showing internet communication of the external stimulator, via a portable PC.

FIG. 19 is a diagram showing the interrelationship of satellite, microwave, and telephone lines communications .

FIG. 20 is a diagram showing the relationship of cellular and telephone network communications.

FIG. 21 is a diagram showing the primary and secondary coils separated by skin, and the components of the implantable stimulator.

FIG. 22 is a diagram showing networking of various devices with the patient through an interface unit.

FIGS. 23A and 23B are simplified diagrams showing communication of modified PDA/cell phone with an interface device via a cellular tower/base station.

FIG. 24A is a block diagram of an Intel strongARM processor.

FIG. 24B is a block diagram of an extensively integrated OMAP chip.

FIG. 25 depicts wireless communication of an interface unit with modified PDA/cell phone via an access point (AP) router.

FIG. 26 shows a physician communicating and exchanging data with a modified PDA/phone using wireless access point.

FIG. 27 is a diagram which shows the information available on a web-page at the server or mobile device.

FIG. 28 depicts networking of the modified PDA/cell phone with third party computer, billing office computer, and patient.

FIG. 29 is a block diagram illustrating type of information available to the physician on a modified PDA/cell phone.

FIG. 30 is a flow diagram for physician initiated nerve stimulation therapy review.

FIG. 31 is a flow diagram for patient initiated nerve stimulation therapy review.

FIG. 32 is a flow diagram for billing, using the modified PDA/cell phone.

FIG. 33 is a flow diagram for writing a report on the modified PDA/cell phone.